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No. 45

In the Supreme Court of the United States

October Term, 1960

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Oil & Gas Journal, October 17, 1960, p. 61 5
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In the Supreme Court of the United States

OCTOBER TERM, 1960

No. 45

FEDERAL POWER COMMISSION, PETITIONER

v.

TRANSCONTINENTAL GAS PIPE LINE CORPORATION, CONSOLIDATED EDISON COMPANY OF NEW YORK, INC., AND THE CITY OF NEW YORK

ON WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE THIRD CIRCUIT

REPLY BRIEF FOR THE FEDERAL POWER COMMISSION

I

WHOLLY UNREGULATED INTERSTATE SALES TO INDUSTRY WILL INFLATE NATURAL GAS PRICES TO ALL CONSUMERS

Throughout their briefs, respondents contrive to skirt the mischief of unregulated interstate sales by independent producers of natural gas. If, however, the "novel and unique"[1] X-20 service is certificated and made available as a pattern to industrial con-

[1] Con Edison characterized the X-20 arrangement as "a novel and unique departure from the traditional concept of gas supply" in its brief before the Commission, May 12, 1958, p. 1.

sumers, in accordance with the holding below, producer efforts to escape the dictates of *Phillips Petroleum Company* v. *State of Wisconsin*, 347 U.S. 672, and *Atlantic Refining Company* v. *Public Service Commission*, 360 U.S. 378, will finally be realized.

1. The sales to Con Edison by The Atlantic Refining Company, Skelly Oil Company, Tidewater Oil Company, Trinity Gas Corporation and others cannot be consummated without the construction and operation of interstate transportation facilities. Should interstate transportation to New York be authorized, however, no regulatory agency, federal or state, would ever scrutinize or review the Texas price of 19¼ cents per Mcf with an eye to reducing it, if excessive. Yet in the very same producing areas of Texas[1] the Commission, in the exercise of its certificate powers over jurisdictional sales (*i.e.*, sales for resale), has, on a case-to-case basis, attempted since *Atlantic Refining*, *supra*, to "hold the line," by conditioning initial producer prices down to 18 cents per Mcf (see *Peoples Gulf Coast Natural Gas Pipe Line Company*, 24 F.P.C. 106).[2] More recently, the Commission, in conjunction with its final order in *Phillips Petroleum Company*,[3] issued its Statement of General Policy No. 61–1 announcing area price levels for independent producer

[1] The "X–20" gas, here in question, is produced in Bee and Duval Counties in Texas Railroad Commission Districts 2 and 4.

[2] See Brief of Southern California Gas Company and Southern Counties Gas Company of California, p. 14.

[3] F.P.C. Opinion No. 338 (not yet reported), issued September 28, 1960, in Docket Nos. G–1148, *et al.*, on the remand in *Phillips Petroleum Company* v. *State of Wisconsin*, 347 U.S. 672.

sales (25 Fed. Reg. 9578), in which the indicated price for Railroad Districts 2 and 4, where the X–20 gas is produced, is 18 cents per Mcf.

Such an 18-cent line cannot be held if producers are offered the alternative of new large-volume unregulated sales at 19¼ cents per Mcf. And it is precisely the fear that this X–20 arrangement will disrupt all regulation of natural gas and undermine control of jurisdictional prices in the field which explains, by and large, the appearances of the States of Wisconsin and California and the Public Service Commission of the State of Michigan as *amici curiae*.

2. Respondents minimize the unregulated gap created by a certificated X–20 service by arguing that it will be small and also criticize the Commission for anticipating "many requests of the same general character" (R. 178a). Transco's attack (Transco Br., p. 27) conveniently assumes that the words, "same general character," in the Commission's opinion mean exactly paralleling the particular facts of the present case. But the Commission obviously directed its concern to *any* use of interstate facilities enabling direct, unregulated sales by producers to large-volume consumers—not merely to direct sales for the avowed purpose of alleviating air pollution. It is the possibility of a proliferation of such sales, sanctioned by the court below, which creates the danger of undue increases in gas prices.

Respondents also attempt to prove that industrial customers will not buy directly from producers because such service is too expensive (Transco Br., pp. 29–32; Con Edison Br., pp. 60–64). This argument,

of course, is based on the cost of the X–20 gas (42.6¢ per Mcf delivered in New York, of which 19.25¢ was the sale price in Texas) as compared to the cost of the regular CD–3 gas or "60-day" gas (34.2¢ per Mcf delivered in New York) (see R. 12a, 31a), at the time of this proceeding. By November 18, 1959, however, the rate of CD–3 gas for Transco was up to 38.2¢ per Mcf subject to refund (F.P.C. Docket No. G–18783), which was later reduced to 37.6¢ per Mcf by settlement order of the Commission, dated October 19, 1960. On October 17, 1960, Transco again filed for an increased rate of 40.4¢ per Mcf (of which 17.3¢ per Mcf represented the cost of the purchased gas). It is clear, then, that the CD–3 rate has gradually increased since the present proceeding. When Transco's average cost of purchased CD–3 gas goes over 19.25¢ per Mcf, then X–20 gas will become a bargain. And indeed Con Edison admitted that it was counting on the fact that, over the life of the 20-year contract, the cost of X–20 gas would be less than the escalated rate for CD–3 gas (R. 99a; see *infra*, p. 27).

The ultimate attractiveness of direct field purchases by industrial consumers (see our Main Br., pp. 63–65) was implied by Con Edison when it acknowledged that, although the X–20 gas was restricted to fuel purposes and could not be used for resale, its hope was that the X–20 service was only a "start" (R. 99a–100a). Moreover, the record shows that Transco encouraged its customers to buy gas directly from producers in the field, with Transco limiting its service to transportation (R. 70a, 71a). The Long Island Lighting Company actively negotiated in the field,

although it indicated no plan to confine its purchases to boiler fuel (R. 63a–65a). Public Service Electric and Gas Company reluctantly indicated on cross examination, over Transco's objections, that, not only had Transco suggested transportation service, but also it insisted that, if the Commission authorized X–20 transportation, Public Service would have to consider a similar program (R. 65a–70a). Transco itself testified to the interest of a major boiler fuel user, the Duke Power Company (R. 71a).

Events since the administrative hearing only confirm the Commission's judgment. The negotiations of the Southern California Edison Company with producers in the field have progressed beyond the situation which influenced prices in the Aneth field in Utah (see our Main Br., pp. 66–67). Hearings before the California Public Utilities Commission reveal that Southern California Edison plans to buy 335,000 Mcf per day of Gulf Coast gas, to be transported through Mexico for use as boiler fuel.[a]

3. Finally, we need look no further than the interstate natural gas pipeline companies, which are themselves large ultimate consumers of gas. In 1959, they consumed 481 billion cubic feet of gas for compressor fuel and other company uses,[b] at a cost of $72 mil-

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[a] California Public Utilities Commission, Hearing on Application No. 40588, testimony of William W. Witmer (Senior Vice-President of Tennessee Gas Transmission Company), Tr. 3287, 3298; see also *Oil & Gas Journal*, August 15, 1960, p. 96; see also *Oil & Gas Journal*, October 17, 1960, p. 61.

[b] Computed from data furnished by individual companies in F.P.C. Form 2, Annual Report, filed by the companies as required by the Commission's regulations under the Natural Gas Act, 18 C.F.R. § 260.1, and published in Federal Power Commission

lion.[7] In almost every instance they presumably bought such gas in ordinary jurisdictional transactions, subject to comprehensive rate regulation, as part of their overall gas supply, without distinction between company use and resale. This volume of gas consumed by the pipeline companies is almost as large as a typical year's increment in their purchases from producers.[8]

The obvious next step, if the decision below stands, will be for producers to insist that the Commission may only permit, but not regulate, "direct" sales for pipeline compressor use.[9] Purchases earmarked for

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Statistics of Natural Gas Companies 1959 (1960), pp. 401A-412A, line 126. Utility use by the pipeline companies themselves represents 6.4% of the 7,520 billion cubic feet they directly purchased from producers.

[7] Federal Power Commission, *Statistics of Natural Gas Companies 1959* (1960), p. xvii.

[8] The F.P.C. Form 2 reports show the following volumes sold by producers to pipelines:

[Millions of cubic feet]

Year	Volume	Increment over previous year
1959	7,519,592	662,962
1958	6,857,030	316,959
1957	6,540,071	394,886
1956	6,145,505	618,788
1955	5,526,917	392,688
1954	5,134,261	

Data for years prior to 1959 has already been published in Federal Power Commission, *Direct Sales by Producers of Natural Gas to Interstate Natural Gas Pipeline Companies—1958*, p. 5.

[9] We express no view as to whether such a scheme would in fact and law avoid the rate coverage of the Act. Similarly, we do not concede the correctness of the examiner's gratuitous dictum that the Commission has no jurisdiction over transportation of liquified natural gas by refrigerated barge or tank

pipeline fuel use would displace and make available for resale volumes being purchased under earlier contracts, and so would increase pipeline supplies through wholly unregulated sales up to the amount required by pipeline companies. In fact, El Paso Natural Gas Company is now attempting to take partial steps toward such nonregulation by app'ing for a certificate authorizing it to transport 170,000 Mcf per day of "non-jurisdictional" gas, which it says will be earmarked exclusively for compressor fuel use.[10]

II

THE TRANSPORTATION OF X–20 GAS FOR USE IN THE CON EDISON PLANT WOULD BE A FIRST STEP TO ENDANGERING THE AVAILABLE SUPPLY OF NATURAL GAS FOR THE FUTURE

1. *The deliverability life of our Nation's gas supply is continuously dwindling.* Transco attempts to paint a highly optimistic picture of the gas reserves in this country to minimize "the significance of the 'number of years supply available'" (Transco Br., App. A, p. A–1), and thus demonstrate that there can be little or no danger to the available supply by using the gas

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car (R. 170a–171a); liquification of natural gas is still in the developmental stage and the jurisdictional question therefore remains open.

[10] The recent El Paso and related applications are in F.P.C. Docket Nos. CP 60–101, CP 60–693, and CP 61–26. They involve purchases of gas produced in the Gulf Coast of Texas totalling 170,000 Mcf per day which El Paso says it will use as fuel. All the producer sales are sales for resale by an intermediate pipeline company to El Paso. For one reason or another, the sales to El Paso are claimed to be immune from rate regulation; the same claim is made as to some, but not all, of the producer sales to the intermediary.

for industrial purposes. The Smith-Wimberly Report of the Federal Power Commission on Natural Gas Investigation (1948), Docket G–580, however, was not so optimistic. There it was reported (pp. 353–354) that "natural gas could not, for more than a few years at most, supply all of the increasing industrial demands for it which would be forthcoming on the basis of existing price relationships with coal and oil in many large and expanding markets." There has also been a notable declining life index of total proven natural gas in the United States—from 32½ years in 1946, and 27 years in 1951, to only 24½ years in 1953, and only 21 1/10 years in 1959. See *Tennessee Gas Transmission Co.*, 12 F.P.C. 311, 335 (dissent); American Gas Association, *Gas Facts* (1960), p. 5.

Life indices, however, only partially reflect the reserve situation as it affects consumers and investors. The crucial issue concerns maintenance of the deliverability life of our reserves. Long before reserves are completely exhausted, reservoir pressures and the resultant rates of possible annual production decline. The result, as everyone agrees, is that a point will some day be reached at which gas use must be curtailed, and pipeline capacities no longer fully utilized. The date of this "breaking point" depends not on the gross reserves, known and undiscovered, which exist within the continent, but rather upon the industry's success in finding them. Forecasts turn on such factors as anticipated rates of consumption, exploration, and development drilling. On the basis of current trends projected into the future, Phillips Pe-

troleum Company, for example, has predicted that 1973 will mark the breaking point. "Domestic Gas Reserves' Future Gloomy Unless Exploration Is Increased," *Oil & Gas Journal*, March 14, 1960, p. 160.[11] Terry and Winger, on the other hand, tentatively predict the end of full-pipeline deliverability life in the 1980's. Terry & Winger, *Future Growth of the Natural Gas Industry* (Chase Manhattan Bank, 1957). All such forecasts are, of course, subject to the uncertainties inherent in the numerous underlying elements which can only be estimated.

Even measurements of reserves already discovered are open to large doubts. Thus, in the original *CATCO* hearing, Tennessee Gas Transmission Company's geologists testified to reserves of 1.7 trillion cubic feet (see also Transco Br., App. A, p. A–1). On the remand, in conformity with the judgment in *Atlantic Refining Co.* v. *Public Service Commission*, 360 U.S. 378, the parties claim that further drilling requires a substantial reduction in the estimate—the producers say down to 0.7 trillion, Tennessee to 1.35 trillion cubic feet. These circumstances make evident the appropriateness of continuing public concern.

Despite these problems of maintaining deliverabiliy, Transco implies to this Court that it has in the past and will continue to expand and grow "to meet the normal growth of the natural gas market which it serves" (Transco Br., p. 33). It is true that Transco's history has been punctuated by dramatic

[11] We, of course, do not endorse Phillips' argument that higher producer prices are called for as the only way to secure increased deliverability life.

expansions,[12] but it also has been punctuated by a continuous dwindling of the deliverability life of its gas supply. Thus, as is pointed out in our Main Brief, p. 70, n. 65, while in its earliest certificate cases Transco could show an overall system gas supply of 20 years, in the instant proceeding it showed only 13 years, and in its next succeeding expansion program, 11 years. Most recently, in seeking authority for yet another major expansion, Transco failed to satisfy the Commission as to the adequacy of its gas supply.

2. *The Commission's efforts to get Transco to provide for underground storage.* Transco's history has also been punctuated by the Commission's efforts to encourage Transco to develop its underground storage facilities. Since a higher "capacity factor" ratio between the actual annual flow of gas to the designed annual capacity of a pipeline is more economical and decreases the unit cost of delivered gas on a year-round basis, the Commission has attempted to prod Transco to increase its load factor ratio by undertaking an underground storage program, rather than by exclusively selling "valley interruptible" gas for inferior industrial use. In this manner, gas could be

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[12] Transco's major certificate cases prior to the instant application, and peak daily capacity authorized, were:

340,000 Mcf..... 7 F.P.C. 24, 139 (1948 initial certificate).
505,000 Mcf..... 9 F.P.C. 32 (1950).
555,000 Mcf..... 10 F.P.C. 469, 522 (1951).
602,000 Mcf..... F.P.C. Opinion 279, issued December 28, 1954.
698,000 Mcf..... 14 F.P.C. 1.
833,000 Mcf..... 17 F.P.C. 333, 860 (1957).
948,000 Mcf..... 18 F.P.C. 710 (1957).

See also Transco Br., p. 33, n. 1.

reserved to augment the number of years of full deliverability to meet essential needs."

When Transco's initial certificate for a pipeline of 340,000 Mcf peak-day capacity was granted, the Commission noted that Transco intended to sell large volumes of interruptible gas for underfiring boilers in electric generating plants, principally for the purpose of maintaining a high load factor; that the Commission had reopened the proceedings to receive evidence as to a storage plan which would "assure utilization of the full capacity of the project in such manner as will best serve the broader public interest"; that Transco had introduced evidence but claimed "that such a project was not economically feasible"; that, nonetheless, the Commission felt Transco's exploration of the storage possibility to be insufficient, and so directed Transco to undertake a thorough study of off-peak storage programs. The Commission sug-

[12] Underground storage programs avoid the dissipation of reserves in inferior uses. This is accomplished by transporting extra gas during the summer valley periods over most of the distance to market, storing the gas in underground reservoirs, which are impervious geological structures (usually exhausted gas fields) near the centers of consumption, and then piping the gas the rest of the way during the relatively brief winter peak periods. The peak capacity facilities are then necessary only from the storage field to the consumption terminus. On a system such as Transco's, spanning as it does some 1,700 miles from southern Texas to New York, the savings could be considerable. The seasonal fluctuation between the summer valleys and the winter peaks were graphically described at R. 153a, which shows Con Edison's July "valley" to be about 60,000 Mcf per day and its December "peak" in excess of 210,000 Mcf.

gested that it would expect the result of such a study to be reflected in any Transco expansion proposals. 7 F.P.C. 24, 40–42, 47. The Commission also conditioned the certificate on filing of a tariff which would not discourage summer storage as against boiler fuel sales, 7 F.P.C. at 38–40, 47.

Transco's next major certificate case resulted in an increase of authorized capacity to 505,000 Mcf.[14] The Commission recalled its earlier concern for development of a storage plan and stated (9 F.P.C. 32, 47–48):

> The testimony adduced in this proceeding quite definitely indicates that the storage of gas during off-peak summer periods for subsequent withdrawals during winter periods of peak demand, is still desirable and that the storage of such gas at such times is preferable to burning gas for boiler fuel purposes. Testimony of Mr. Forbes, executive vice president of Consolidated Edison Co. of New York, Inc., indicated the willingness of his company to pay a premium for storage gas because of increased reliability of service.

The Commission approved Transco's efforts and urged the bringing of a storage project to fruition. The Commission again directed a tariff which would deter over-extensive use of gas as boiler fuel, and assure the priority of any storage program, once facilities were developed for it, over boiler fuel uses.

[14] The original pipeline was designed for such an expansion. 7 F.P.C. 139, 141, fn. 2.

9 F.P.C. at pp. 48–50, 55, 64. The tariff was approved at 9 F.P.C. 1269.[18]

The Commission did grant Transco additional certificates for interruptible boiler fuel services when the system had excess capacity, but it continued to press for development of the storage alternative (*e.g.*, 11 F.P.C. 605, 615; Order, issued December 15, 1955, in Docket No. G–1873). It certificated gas service to industrial customers for whose operations natural gas was a uniquely desirable fuel (9 F.P.C. 1327; 11 F.P.C. 590; 14 F.P.C. 1; 17 F.P.C. 333, 346), and it also certificated gas transportation service (9 F.P.C. 32, 54).

Transco did not finally present a storage program until the proceeding here under review. That proposal, to provide 191,000 Mcf per day for winter peak needs from the Leidy storage field in Pennsylvania, was certificated in 1958 at 20 F.P.C. 264.

III

THE LEGISLATIVE HISTORY OF THE NATURAL GAS ACT, AS AMENDED, AND CONTEMPORANEOUS COMMISSION STATEMENTS INDICATE THAT THE COMMISSION HAS THE POWER TO CONSIDER END-USE IN CERTIFICATE PROCEEDINGS UNDER SECTION 7(C)

To support their contention that the Federal Power Commission lacks power under any circumstances to consider the use to which natural gas is put, respondents rely heavily on a purported concession by the

[18] Such a provision remains in effect. The Court will find an example in paragraph 2(b) of Transco rate schedules CD–3 and G–1 (R. 154a–157a).

Commission that it lacks such power [16] (Con Edison Br., Points I and II, pp. 26–57; Transco Br., Point III, pp. 47–67). Respondents also contend that congressional inaction respecting certain Commission requests for comprehensive conservation authority means that Congress does not intend that the Commission have such authority (Con Edison Br., p. 53).

Congressional inaction with respect to the broad powers of conservation, however, does not imply denial of more limited powers to the Commission to consider end-use; the broad powers of conservation which respondents discuss, and which the Commission admittedly has sought, are not the equivalent of the limited power to consider end-use which the Commission asserted in the present case and which alone is at issue here.

So far as the limited power to consider end-use is concerned, the Commission's reports to Congress on proposed legislation, as well as the testimony of individual Commisioners, clearly reflect its view that it already had, and was exercising, such a power in certificate cases. Moreover, legislative attempts, which would have prevented the Commission from considering the use for which natural gas may be sold (see

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[16] Any argument as to whether the Commission did or did not, after the 1942 amendment, make concessions concerning its power is of limited utility. Only an examination of the Act and its history will reflect the power Congress gave the Commission. If Congress granted the power, the inquiry should end there. Even if one assumes a concession erroneously made by the Commission, it would not be controlling. *Phillips Petroleum Co.* v. *Wisconsin*, 347 U.S. 672, 677–678, and note 5.

infra, pp. 19–23), and which also were met with Congressional inaction, are much closer to a description of the power asserted by the Commission in the present case than are any of the legislative requests for broad conservation power which respondents choose to discuss. Thus, the tendency of the post-1942 record of legislative proceedings and Commission statements reflects, if anything, a Congressional awareness that the Commission was actively asserting its power to consider end-use, and a Congressional design to permit the Commission to continue to do so.

1. The legislative histories of the 1938 Act and its 1942 amendment, which demonstrate that the Commission is empowered in certificate cases to consider the end-use to which natural gas is put, has already been discussed in our main brief (Point II, pp. 24–44). What little must be added arises from the apparently studied confusion which respondents make between two vastly different statements of Commission power, by which they equate the Commission's consideration of end-use in the present case with the more comprehensive powers of allocation and conservation of natural gas which the Commission has continually sought from Congress (see, *e.g.*, Con Edison Br., p. 41, n. *).

The language of the Commission's 1940 and 1944 annual reports, relied on by the court of appeals below (R. 315, n. 20, 316, n. 24) and by respondents here, is fully consistent with the position that the Commission never conceded that it lacked *all* power to deal with conservation, but merely that it lacked full, comprehensive and specific power (see our Main Br., p.

43, n. 34). Moreover, the Commission in another report in 1944 to the Chairman of the Senate Committee on Interstate Commerce with respect to S. J. Res. 92 [17] made crystal clear its understanding of its power to consider end-use as a result of the 1942 amendment of Section 7. In that report, the Commission noted the need for wise conservation practices in the production and use of natural gas if premature exhaustion of this great natural resource was to be avoided (see S. Rept. No. 1234, 78th Cong., 2d Sess., pp. 3–6). With respect to its post-1942 treatment of competing fuel interests under Section 7 of the Act, and its concern as to whether the displacement of less valuable fuels by natural gas merely ignored "social costs which must eventually be paid", the Commission's report noted that "the work which the Commission *is doing* under [the Natural Gas Act] * * * should be considered as a first step in dealing with the conservation of one of the country's exhaustible resources" (*id.*, at p. 5, emphasis added). As for the 1942 amendment itself, the report stated (*id.*, at p. 6):

> The amendment to section 7 of the Natural Gas Act [in 1942] removed the statutory impediment to consideration by the Commission of the social and economic effects of the use of natural gas and competing fuels in certificate

[17] This resolution proposed a comprehensive study to be conducted by the Commission to secure for Congress information to guide it in further legislation for the conservation of natural gas. The need for directing such an investigation evaporated when the Commission issued its own order instituting the Natural Gas Investigation. 4 F.P.C. 725–727. See also F.P.C. Twenty-Sixth Annual Report (1946), pp. 66–69.

> cases, which existed prior to the amendment; but the consideration of such interests in particular cases only makes more necessary a general investigation inquiring into the subject matter on a national basis such as that proposed by the joint resolution.

It is thus clear from this report that the Commission made no concession as to its existing power to consider end-use under Section 7, and further added its support to the broad investigation proposed by S. J. Res. 92 in order to clarify the direction in which the powers the Commission already had should be "broadened" (*id.*, at pp. 5–6). Indeed, the Senate Committee on Interstate Commerce itself recognized that "[i]n administering the Natural Gas Act, particularly section 7(c) thereof, as amended, * * * the Commission *is* directly concerned with the problem of conservation of natural gas" (*id.*, at p. 2; emphasis added). The Committee, however, also indicated its concern in S.J. Res. 92 with the need for possible "*further* legislation to restrict unnecessary waste or depletion of natural gas reserves or the utilization of natural gas for inferior or otherwise undesirable purposes in competition with other fuels" (*id.*, at p. 3; emphasis added).

2. Following the exhaustive Natural Gas Investigation in F.P.C. Docket No. G–580, Commissioners Smith and Wimberly issued a report in 1948 in which they urged the gas industry to limit inferior industrial consumption;[18] Commissioners Olds and Draper

[18] These Commissioners did not comment on whether or not the Commission had the power to condition certificates in the

in their separate report specifically discussed the end-use conservation and fuel-competition problems, but concluded that the "Natural Gas Act, as amended in 1942, should not be further amended in any fundamental way" (Olds-Draper Report, pp. 12–13). Even without amendment to the Act, however, Commissioners Olds and Draper believed that the Commission could and "should give increased consideration to the conservation aspects involved in the delivery of natural gas from the major natural-gas-producing states * * * to the great coal-producing States * * *" (*ibid.*). This recommendation, they emphasized, "assumes definite but flexible consideration of the end-uses to which natural imported gas from the Southwest may be put * * *" (*ibid.*) Later in their report, they pointed explicitly to the 1942 amendment of the Act as unequivocal congressional recognition that certain aspects of conservation are a federal responsibility which the Commission is to discharge in certificate cases by considering the relationship between gas sales and the fuel economy of the area in which gas is sold.[16]

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interest of conservation, or to foster relatively superior end-use of natural gas, but, significantly, neither did they suggest that the Act needed amendment in this regard.

[16] F.P.C., Natural Gas Investigation, Olds-Draper Report, p. 75:

"Before discussing this aspect of the record before us, it should be recognized that the Congress of the United States has taken the position, unequivocally, that there are certain aspects of conservation of natural gas which require the exercise of Federal responsibility. For the legislative record of the February 2, 1942, amendment of section 7 of the Natural Gas Act, indicated in section I, shows clearly that Congress in-

3. In the First Session of the 80th Congress, several virtually identical bills were proposed which would have prevented the Commission from concerning itself with end-use under any circumstances (S. 734, H.R. 2185, H.R. 2235, H.R. 2292, 80th Cong., 1st Sess.). The operative language of each of these bills included the following provision as a part of a major revision of Section 1(b) of the Act:

> and nothing in this chapter shall be construed as authorizing the Commission to prohibit or restrict the transportation or sale in interstate commerce of gas for utilization for any purpose for which such gas may lawfully be used.

In introducing H.R. 2235, which contained this language, Congressman Carson stated that the design of this provision was "to prevent the FPC from controlling, directly or indirectly, the end use of natural gas" (93 Cong. Rec. A1166 (1947)). Congressman Rizley, sponsor of H.R. 2185, speaking in support of his bill (93 Cong. Rec. A1826, A1832 (1947)) noted that since

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tended the Federal Power Commission, in connection with applications for certificates of convenience and necessity for new interstate pipeline facilities, to give consideration to conservation, including the relationship between the proposed additional sales of gas and the fuel economy of the area in which such sales would be made.

"This amendment to the original Natural Gas Act expressed congressional recognition of the fact that the relatively recent development involving the transportation of steadily increasing volumes of natural gas from the great reserve States of the Southwest to the northern industrial belt extending from the Mississippi basin to the Atlantic seaboard, created conservation problems which had not theretofore been dealt with adequately either by individual States or by the Interstate Oil Compact Commission."

"the Commission has asserted the power to condition certificates of public convenience and necessity according to the purpose for which the gas is to be used," the design of H.R. 2185 was to "prevent the Commission from controlling the use for which natural gas may be sold." After describing several cases in which the Commission had asserted its flexible boiler fuel policy, Congressman Rizley concluded by noting that a court of appeals had even "agreed that the Commission may consider as one of the factors entering into the granting or denying of certificates the purpose for which the gas is to be used" (*ibid.*).

In Hearings on H.R. 2185, H.R. 2235, H.R. 2292, and H.R. 2956 before the House Committee on Interstate and Foreign Commerce, 80th Cong., 1st Sess., pp. 10–13 (1947), the Commission maintained that the bills were premature because of the pendency of the Natural Gas Investigation (see also Hearings on S. 734 and S. 1028, before the Senate Committee on Interstate and Foreign Commerce, 80th Cong., 1st Sess., pp. 36–38). During the House Committee Hearings, Chairman Smith of the Commission questioned the meaning of the proposed amendment to Section 1(b) of the Act as to its application in certificate cases, and was openly incredulous that anyone could expect the Commission to determine the public convenience and necessity without any consideration of the market and the nature of the demand for the gas—matters which the bill would obviously have placed beyond Commission consideration (House Hearings, p. 683). He then described the necessity for the Commission under the Natural Gas Act to consider the economic impact of

the use of gas upon competing fuels, and in response to direct questioning noted that such end-use was one of the factors to be taken into account in the determination of public convenience and necessity (*id.*, at pp. 685, 686)—which is, of course, all that the Commission has done here in the present case. Commissioners Draper, Olds and Wimberly thereafter stated that they had nothing to add to Chairman Smith's statement (*id.*, at p. 685).

4. H.R. 2185 with amendments proposed by the House Committee became H.R. 4051, and was introduced as "a clean bill" by Congressman Rizley in the House of Representatives on July 1, 1947. The House Committee had made it clear that it did not favor denying the Commission power to consider end-use by deleting the provision concerning Section 1(b) of the Act which prevented the Commission from prohibiting or restricting the use of natural gas. H.R. 4051 was referred to the House Interstate and Foreign Commerce Committee and reported on July 7, 1947. After some debate, it passed the House on July 11, 1947.

Hearings on H.R. 4051 were held before a subcommittee of the Senate Committee on Interstate and Foreign Commerce, 80th Cong., 2d Sess. (1948). In the course of these Hearings, Commissioner Olds, speaking for Commissioner Draper and himself, testified in part as follows:

> * * * [T]he thing I was discussing was provided for by the Congress in 1942 in the amendment to section 7 of the Natural Gas Act. And *the legislative record makes it so clear that no-*

body can escape it that the conservation aspects, the competitive fuel aspects, of the natural gas industry, were to be considered by the Commission in handling its certificates of convenience and necessity cases [p. 173].

* * * * *

Mr. WOODWARD. Does the Commission have that authority now, under the Natural Gas Act, to regulate the use of gas?

Mr. OLDS. I think the Commission has the authority to determine what the public interest requires when it issues a certificate of convenience and necessity.

Mr. WOODWARD. And for what use?

Mr. OLDS. That is right, I think it can condition it.

Representative CARSON. Is that not exactly contrary to the intent of Congress in section 1(b) of the Natural Gas Act, that you shall not control the end use of gas or the processing and gathering in the fields?

Mr. OLDS. I think if you will examine the legislative history of the amendment * * *, I think the thing I am talking about is fully provided in the amendment of February 1942, to the act, and the legislative history indicates that *one of the concerns of Congress in adopting that amendment was to provide a basis on which the Commission could consider that question of wise use in coal areas* [pp. 190–191; emphasis added].

Nothing more is involved in the present case than the Commission's response to the "question of wise use" in a particular area where coal is being used. The wisdom of its response is measurable directly by the

reasonableness of its decision involving a variety of complex factors.

5. At the same session of Congress in which the four bills which would have prevented the Commission from restricting end-uses of gas were introduced, there was also introduced H.R. 2569, which sought to establish a national policy with respect to the transportation of natural gas in interstate commerce. This bill would have authorized the Commission to "[c]onserve the reserves of natural gas for utilization which affords the highest social benefits to the public, consistent with reasonable rates and adequate service." This bill was considered in the same hearings which were held on H.R. 2185, H.R. 2235, H.R. 2292, and H.R. 2956, discussed *supra*, pp. 19–21.

A bill with a provision identical to H.R. 2569 was subsequently introduced as H.R. 982, 81st Cong., 1st Sess. (1949). In the hearings on this bill and others (H.R. 79, H.R. 1758, and H.R. 982) before a subcommittee of the House Committee on Interstate and Foreign Commerce, 81st Cong., 1st Sess. (1949), the Federal Power Commission recommended against its passage. Its report explains that the great bulk of gas sold for inferior industrial uses is in the intrastate market excluded from Commission jurisdiction, and that, for the bill to be fully effective, Commission jurisdiction would have to be extended [20] (House Hear-

[20] This comment is an obvious reference to the exclusion from Commission jurisdiction of (1) rate regulation over natural gas sold directly to industrial consumers, and (2) rate suspension over indirect sales of natural gas for industrial purposes. See *The First Five Years Under the Natural Gas Act*, p. 15, January, 1944; *Panhandle Eastern Pipe Line Co.* v. *Public Service*

ings, pp. 164–166). With respect to the bill's proposed authority to limit the purposes for which gas may be used, however, the Commission's report states (*id.*, at p. 165, emphasis added):

> The Commission, however, is aware of the problem and in certificate cases it does give consideration to the proposed uses of the gas in question. The Commission believes that, ***under the present Act, it may give proper consideration to this matter in certificate proceedings.***

It can thus be seen that neither the Commission nor the individual Commissioners have ever conceded a lack of power to consider end-use."

6. In our main brief (pp. 39–40) we have described the Court's interpretation, in *Federal Power Commission* v. *East Ohio Gas Company*, 338 U.S. 464, 468–469, of the 1942 amendment's broadening of the Commission's power under Section 7(c) to control pipe line construction "with a view to conserving one of the

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Commission of Indiana, 332 U.S. 507, 516–517. The court of appeals' chief error in finding a "concession" in the Commission's statement in its *First Five Years* report resulted from its ignoring the Commission's footnote to the report which pointed out that, precisely because it lacked this power over direct industrial sales, it therefore did not have "complete" and "comprehensive" power to deal with conservation. This point is more fully developed in the National Coal Association brief, in No. 46, at pp. 20–22.

[11] It seems unnecessary to trace the history of the Commission's legislative recommendations and the bills it has drafted from 1951 through 1959 (see Con Edison Br., pp. 52–53), since the broader power to "allocate the available supply of natural gas," at apparently any time after issuance of a certificate, is markedly different in both content and breadth from the power to consider end-use in a certificate proceeding, which is all that is involved in the present case.

country's valuable but exhaustible energy resources." The Congress had a readily available opportunity to know of this interpretation since the Court's opinions in *East Ohio* were reproduced in full as appendices to the virtually identical committee reports on the bill which became the 1954 amendment to the Act, the Hinshaw amendment (S. Rept. No. 817, H. Rept. No. 899, 83d Cong., 1st Sess. (1953)). Both committee reports expressly reaffirmed "the original intent of the Congress in enacting the Natural Gas Act; namely, that the Act was to supplement, and not supplant State regulation" (*id.*, at p. 1).

In reporting to the committees its approval of the Hinshaw amendment, the Commission pointed out that previous legislative attempts in the same direction had gone too far and would have created regulatory gaps—which it described as the removal of federal jurisdiction without at the same time providing for effective state regulation (*id.*, at p. 4). The Commission then stated (*ibid.*):

> Manifestly, either Federal or State regulation is essential if this important monopolistic industry is to be properly supervised and the broad interests of the general public—including the interests of consumers and investors—are to be adequately protected.

The Hinshaw amendment, which left undisturbed the rationale in *East Ohio* that the Act must be read as supplementing and not supplanting state regulation, although it reversed the particular result in *East Ohio*, is specially significant here, since X-20 type transactions cannot effectively be regulated by the

states (see our Main Br., pp. 78–79, note 71), and approval of such transactions will create a gap in regulation which may undermine the effectiveness of Federal Power Commission regulation of the industry.

No warrant exists anywhere in the legislative history of the Act, the proposed legislation affecting it, or in Commission statements, for creating a regulatory gap by denying to the Commission the limited power to consider end-use—denial which, as we have stressed, forbodes results directly contrary to explicit Congressional design.

IV.

IT WAS NOT ERROR FOR THE COMMISSION TO WEIGH ALL THE FACTORS EVIDENCING AIR POLLUTION AT WATERSIDE AGAINST THE OTHER CONSIDERATIONS MILITATING AGAINST THE X–20 SERVICE AND CONCLUDE BY DENYING THE CERTIFICATE

In order to prove that the proposed use of the X–20 gas is in the public interest, Transco would have this Court believe that Con Edison's major concern in contracting for the gas was "suppressing the acute air pollution problem caused by two of the boilers in its Waterside Station * * *" (Transco Br., p. 2; see also *id.*, p. 27). And, at the certificate hearing, Con Edison maintained that its purpose was to reduce the stack emissions from its Waterside plant in order to cut the air pollution (see, *e.g.*, R. 166a–167a; our Main Br., p. 5). Yet during the hearing it became clear that of the 50,000 Mcf of X–20 service per day which Con Edison originally contracted for and the 120,000 Mcf of X–20 service per day which Con Edison was to obtain within a two-year period (see, *e.g.*, R. 5a, 98a–

100a, 142a, 147a, 149a–152a), only 25,000 Mcf per day were to be used throughout the year for Boilers 71 and 72 [2] at the Waterside plant to cut down the air pollution (R. 98a).

This revelation caused Mr. Manz of Con Edison to admit that "the primary purpose of the X–20 service is to get the capacity for our gas system during the winter peak period" (R. 98a). On the basis of this admission, Mr. Manz was then pushed to explain why Con Edison had just not entered "into a contract with Transco for CD–3 gas up to 50,000 Mcf per day in the beginning" (R. 98a). In answer, Mr. Manz further revealed that the basic reason for having entered into the X–20 arrangement was to "buy gas without escalation over a long period of time * * * in addition to getting the pipeline capacity so that we could carry our system in the peak" (R. 99a). Subsequently, Mr. Thomas of Con Edison divulged that the producers had entered into the particular contract with Con Edison in order to avoid "regulation and the necessity of long proceedings before the Commission" (R. 108a).

In view of the circumstances surrounding the proposals for the X–20 service, Transco's and Con Edison's concern for the problem of air pollution in the vicinity of the Waterside plant comes out in sharper perspective. This is not to say, of course, that the Commission did not consider the air pollution problem important. Contrary to Transco's allegations that the Commission failed "to consider fully the un-

[2] These two boilers are the real source of air pollution concern at Waterside (R. 41a).

contradicted evidence concerning the air pollution problem" (Transco Br., p. 46), but rather "brush[ed] it aside with only superficial comment" (*id.*, at p. 45), the Commission gave full and complete attention to all of the following factors: (1) "evidence of the general and extensive importance of air pollution in New York City and not just in the vicinity of the United Nations Secretariat," (2) "expert opinion of the harmful and costly effects of air pollution on health and property in that City," (3) "the expense and trouble to which Consolidated Edison has gone to remedy the situation * * *," (4) "the fact that air is a natural resource which deserves conservation * * *," and (5) "the 'policy considerations' embodied in Public Law 159 * * * which was designed to encourage research respecting the control of air pollution by local authorities, and Executive order 10779 in pursuance thereof" (R. 191a–192a). The Commission then weighed these considerations against such considerations as the need for effective regulation, price impact, preemption of gas supply, preemption of pipeline capacity, and end-use (see *supra*, pp. 1–13; our Main Br., pp. 55–82), and concluded that "the balance swings against the grant of the X–20 service" (R. 192a; see R. 178a). Even the Court of Appeals for the Third Circuit admitted below that "the weighing of factors of this kind, if within the jurisdiction of a body, is a matter in which a reviewing tribunal will not interfere if a rational conclusion has been reached" (R. 323).

On the basis of this criterion laid down by the Third Circuit, the Commission did reach a rational

conclusion. It has already been shown in our main brief that the record was inadequate to establish that the proposed X–20 service was required for air pollution purposes (Main Br., pp. 6–8, 74–80). The presiding examiner himself was impressed by the inadequacies of the record, and even went so far as to state that, if adequate proof of injury to health, economic loss, etc., had been made, then the boiler fuel use under those circumstances would have been "markedly more necessary and valuable than for home space heating, cooking or water heating" and "without doubt" in the public interest (R. 172a–173a; see Main Br., p. 78).[23] More than being just inadequate, however, the record also clearly shows that there were other valid methods by which the air pollution problem could have been solved, or at least effectively alleviated, without the X–20 service, and that, although the alternative methods available might not have been so efficient or so comprehensive as the natural gas method, the balancing of the other considerations which militated against the X–20 service proved decisive in the Commission's denial of certification.[24]

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[23] Even in these circumstances, however, the Commission might have been justified in not granting the certificate in view of the other factors involved because, in the Commission's view, "end-use," with which the problem of air pollution is involved, "is but one factor, and that not of determinative importance, which we consider in the exercise of our judgment on all the facts" (R. 189a).

[24] Although "air is a natural resource which deserves conservation as much as any other resource" (R. 192a), the Commission believed that fuel conservation should be given equal consideration. At the Proceedings of the National Conference

1. *The smoke stack could have been built higher.* One of the major problems in the Waterside plant area is that the area is "one of the most densely built-up areas of New York City, and probably of the world," with "more than 66 buildings over 18 storeys in height" (R. 42a). The United Nations Building is 542 feet high and the Tudor City buildings, across the street from the Waterside plant, are "approximately the same height" as the Waterside smoke stacks, which are 474 feet high (R. 86a–87a; but compare photograph, R. 137a, which shows the dark-brick Tudor City buildings to be considerably lower than the stacks).

Under these circumstances, Dr. Greenburg testified that, since the smoke stacks of Waterside are surrounded by tall buildings, "the stack contents enter these adjoining building[s], or deposit right on the adjoining buildings" (R. 112a).[25] If, however, the area

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on Air Pollution sponsored by the Public Health Service in 1958, Mr. Harry Ballman in his paper on *Economic Aspects of Engineering Control—Fuels Industries*, stated that "[f]uel is a commodity given to our economy in a quantity and quality which it is our responsibility to use properly. Equipment design and application are the tools to reduce air pollution from boiler fuels to a minimum" (p. 320). Mr. Ballman also quoted (p. 319) John D. L'Hote in his article on *Coal vs. Gas vs. Oil for Heating Schools*, School Planning, Oct.–Nov. 1956, as stating that "[t]he answer to cleanliness in a building and to the elimination of smoke lies in good design and good operation rather than the fuel."

[25] Presumably all atmospheric contaminants are removed by special air washers in the air conditioning system of the United Nations Secretariat Building (see R. 162a). The complaints with respect to the U.N. building, which are reflected in the record, originated during the construction of the building (R. 47a, 159a).

were uncluttered by buildings, the stack contents would travel a certain distance in a "plume" and would then be "dissipated in the atmosphere, and the solids in general [would] fall out on the ground" (R. 111a). At the hearing it was disclosed that the same effect for maximum dispersal of the plume and final dissipation of the pollution contents into the atmosphere could be achieved by building a higher smoke stack connected to Boilers 71 and 72 (see R. 87a).[28] Mr. Manz of Con Edison admitted that the emission problems could be greatly reduced with a stack 700 feet tall, and that a 600-foot stack would also "probably" be sufficient (R. 87a). He insisted, however, that the building of such a stack "was not economically justifiable," although he could give no figure for the cost of constructing a 700-foot stack and admitted that the building of a 600-foot stack would probably "reduce the cost considerably" (R. 87a–88a). Mr. Manz further insisted that "there was a restriction on the height of our stacks" because of "the aesthetic character of the neighborhood surrounding the United Nations' community" (R. 88a), but gave no indication that Con Edison had even inquired whether it might be possible to get permission to have a nonconforming use in the neighborhood. Under these circumstances, the presiding examiner and the Com-

[28] According to recent studies, the use of high velocity by restrictive nozzles at the stack top or the building of stacks with heights up to 750 feet have been used to obtain optimum plume discharge. See Williamson, *Extent to Which Available Control Techniques Have Been Utilized by Industry—Electric Power*, in Proceedings, National Conference on Air Pollution, Public Health Service (1958), p. 347.

mission were not required to come to the conclusion, as does the City of New York in its brief (p. 7), that increasing the stack height would have been technically impractical.

2. *The boilers could have been removed from the system and the load transferred to other stations.* Another suggestion made during the certificate proceedings was to have Boilers 71 and 72 completely removed from the system and to transfer the load they carried to other stations within the system (*e. g.*, R. 80a). This method could effectively reduce the flyash emission by at least 60 percent and the sulphur dioxide gas by some 22 percent (cf. R. 50a). In this regard, it was pointed out that the electrical system of Con Edison had been designed so that it could carry "the largest unit load loss of * * * any given plant" (R. 81a). Thus, since the largest units at Waterside were Boilers 80 and 90, the other plants could carry the load loss by Boilers 71 and 72 (*ibid.*). Mr. Manz disagreed with this conclusion, however, because, he insisted, the design of the electrical system to carry the largest unit load loss only contemplated "emergency outage," and that therefore "[a] plant outage such as would be required for this would have to be above or beside or beyond the loss of the next largest unit" (*ibid.*).

It was then determined that the percentage of the total system which Boilers 71 and 72 carried was 2 percent (*ibid.*). Despite the fact that, as the presiding examiner observed, 2 percent was "well within what most utilities have as reserve capacity" (R. 172a), Mr. Manz insisted that the Con Edison sys-

tem could not take up a 2 percent loss in system capacity by transferring the load over, since the Waterside area was very tight, with little means of expansion, so that "[a]s the [normal] load builds up in the Waterside area * * * and gets to a point where it is unsafe or unreliable to try to carry it * * * [at the Waterside station], plans are made well in advance to shift some of that load to other stations * * *" (R. 83a).

When pressed, however, Mr. Manz had to admit that Con Edison was "transferring some of the electric generation over to the steam," and that therefore, to the extent that some of the load was being taken "away from the electric generation," the electric generation has to be made up—at least in "moderate amounts"—"by transferring the load over to another station" (R. 85a–86a). When asked how much "a moderate amount" was, Mr. Manz averred that it was "probably less" than 2 percent, but did not know whether it was "between 1 and 2" (R. 86a). Later, in commenting on Mr. Manz' equivocal answers, the presiding examiner observed that Consolidated Edison had avoided " the claim that the steam heating load cannot be carried by inoffensive equipment by shifting that equipment's loading to the exclusive production of steam for heating, if necessary" (R. 172a).

Probably the most difficult problem with transferring the load from Boilers 71 and 72, however, was the amount of time necessary to carry out the plans for retiring the boilers. Mr. Manz estimated that it would take "four years of so-called lead-time from the time you make the decision and get approval to

install generating capacity until it goes into service" and "18 months to two years to get transmission facilities into service from the time you make the decision to take such a step * * * and it might take as much as 6 to 10 years * * * after the decision had been made" (R. 101a). What Mr. Manz neglected to say, however, and what Mr. Thomas of Con Edison added, was that, despite the fact that Con Edison had long been concerned with the emissions from the Waterside plant, the company had developed no plans to shift the load to other stations (R. 107a).

3. *The boilers could have been rebuilt.* Another alternative suggested at the proceeding was to rebuild the boilers to hold the smoke within satisfactory limits while still using coal as a fuel (R. 15a–16).[27] Con Edison, however, estimated that "the rebuilding job would take two years for each boiler" (R. 16a) although the boilers would not be out of service for the entire time period (see R. 50a) as opposed to "within a 12-month period" for the conversion to natural gas (R. 52a–53a). Rebuilding one boiler at a time, however, would only mean a system loss of at most 1 percent (see R. 81a), whereas Mr. Manz testified that the constant transfer of electric generation to steam meant a normal load transfer to other sta-

[27] In our main brief (p. 77), we quote Orning, *Industrial Sources of Air Pollution—Electric Power Plants (Coal Fuel)*, in Proceedings, National Conference on Air Pollution, Public Health Service (1958), p. 155, as stating that the emission of smoke and organic gases from smoke stacks is the "result of faulty design or poor operation," and that "no significant quantities of these products are emitted from well-designed and properly operated coal-fired electric powerplants."

tions of "probably less" than 2 percent (see R. 85a–86a); thus, the system loss of only one boiler at a time would be at least within the system's normal load transfer and certainly "well within what most utilities have as reserve capacity" (R. 172a).

Another impediment to rebuilding the boilers, according to Con Edison, was the estimated cost of $12 million for rebuilding (*e.g.*, R. 16a, 33a, 50a) as opposed to "$1,850,000 to convert eight boilers to gas burners" and $1 million to extend "the high pressure main down First Avenue * * *, half of which is chargeable * * * to the Waterside installation" (R. 33a.). But the alternative of rebuilding the boilers, as against converting to gas, could reasonably be expected to raise Con Edison's costs by no more than $1,641,000 in the first year.[28] The annual costs would

[28] The base figure in our computation is $9,650,000 (the difference between the cost of the boilers and the cost of converting the eight boilers and the allocated cost to Waterside of extending the high pressure main) (see R. 143a). Public utility experience indicates the reasonable range of annual cost to be 14 to 17 percent of net plant investment. We have used the maximum figure of 17%. This covers return on net investment, depreciation, income and other taxes. We do not include an allowance for operating expenses (some 2%) since they would be incurred in approximately the same amount whether the two boilers are rebuilt or not. Nor is it appropriate to include the operating savings claimed by Con Edison to result from the X-20 service (R. 144a). The gas system savings do not result from burning gas under boilers 71 and 72 for air pollution purposes; they rather stem from the use of 60-day peaking gas in lieu of manufactured gas. The electric system savings assumed gas would be a cheaper fuel than coal under boilers 71 and 72; Con Edison now says events have proved otherwise (Con Edison Br. 62).

decline thereafter because of the depreciating investment involved. This increase in annual cost due to rebuilding the boilers would be equivalent to about .0093¢ per kilowatt-hour.[29]

If one compares the above cost to Con Edison with the annual costs to gas consumers—both Con Edison's and gas consumers generally—of increased gas prices assuming only a 1¢ rise of pipeline rate per Mcf due to the price impact of direct producer-industry sales (see *supra*, pp. 1–7), the result is highly illuminating. Thus, on the basis of Con Edison's estimated gas purchases for 1960, exclusive of X–20 service, the cost to Con Edison's gas consumers would be $465,600 for a 1¢ increment with an additional $153,940 allocated to Con Edison's electric system, or a total of $619,540.[30] Moreover, if the X–20 sales were to cause pipeline gas purchase costs to rise in the field by an average of 1¢ per Mcf, the total cost for Texas gas alone based on the increment of gas sold in 1959 over the gas sold in 1958 would be $1,899,630,[31] and for the United States,

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[29] These figures are based on Con Edison's 1959 Annual Report in which the Electric Department reports sales of 17,653,913,344 Kwh for 1959. The figure also assumes that Con Edison's steam customers bear none of the cost.

[30] Con Edison's estimated 1960 gas supply, derived from Transco CD–3, Tennessee CD–5, Transco storage, and Tennessee storage, is 61,954,000 Mcf (R. 147a, lines 3, 8). Con Edison's annual gas sales are 46,560,000 Mcf (R. 147a, line 18) or $465,600 for a 1¢ increment. The difference between the total supply and the gas sales is equivalent to the allocation of gas to Con Edison's electric system, *i.e.*, 15,394,000 Mcf, or $153,940 for a 1¢ increment.

[31] The following data is based on F.P.C. Form 2 reports of pipeline companies to be published in F.P.C., *Direct Sales by*

$6,629,600.[31] In these circumstances, respondents can hardly claim that the Commission acted arbitrarily when it decided that the vast potential inflationary effect that the certificating for transportation of the X–20 type service could have outweighed such matters as costs associated with replacing the boilers (see R. 179a; our Main Br., pp. 62–67; *supra*, pp. 1–7).

4. *Non-X-20 gas already used in other stations could have been transferred to Waterside for use in the offending boilers.* But even granting that conversion to natural gas is less expensive and less time-consuming, X–20 service is hardly necessary to provide sufficient gas to alleviate the pollution problem with respect to Boilers 71 and 72 at Waterside. The presiding examiner observed that "substantial volumes of valley gas have been used in other stations on the system ever since the company commenced taking natural gas from Transco in 1951," but "no natural gas has been burned in the Waterside station" (R. 167a–168a). At the hearing it was disclosed that, in 1957, Con Edison used 28,669,000 Mcf[33] of valley gas (78,578 Mcf per day) for boiler fuel use at its various stations (R. 74a, 89a). At the Hell Gate station alone, where the boilers do not present the same air pollution prob-

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Producers of Natural Gas to Interstate Pipeline Companies—1959 (1960). In Texas, 3,494,382,000 Mcf were sold in 1959, and 3,304,429,000 Mcf in 1958, or a difference of 189,953,000 Mcf.

[32] In the United States, 7,519,990,000 Mcf were sold in 1959 and 6,857,030,000 Mcf in 1958, or a difference of 662,960,000 Mcf.

[33] In later testimony this figure was erroneously referred to as 28,559,000 Mcf (R. 89a).

lem, Con Edison used 17,789,000 Mcf of valley gas for 1957 (R. 74a, 91a). Yet Con Edison testified that only 25,000 Mcf per day (or 9,125,000 Mcf per year) of natural gas were necessary to convert Boilers 71 and 72 at the Waterside station (R. 91a, 98a). Thus, the gas from Hell Gate alone could provide Con Edison with well in excess of what was necessary per year to convert the boilers.

Con Edison agreed that "[I]t could be done," but pointed out that since this was valley gas, it would have to be eliminated or curtailed at the peak period during the winter (R. 91a). At most, however, there would have been an interruption of about 95 to 100 days a year (R. 92a, 107a).[34] Despite this fact, Mr. Manz, when asked why "a clean stack for nine months out of the year [wouldn't] * * * be better than none at all," answered, "Because I do not believe that the Air Pollution Control Commission of the City of New York will accept three months pollution" (R. 92a). Despite the reluctance of Con Edison to admit the ease by which the air pollution at Waterside could be alleviated by the valley gas, its most recent annual report to the Commission indicates that it finally has taken the step—in 1959, without any X-20 gas, it managed to burn 10,437,005 Mcf at the Waterside station (F.P.C. Form No. 1, p. 86-1; see our Main Br., p. 8, n. 10).

Finally, it is impossible to find any suggestion in the record that the air pollution problem can be allevi-

[34] But see the chart on the Use of Natural Gas, (R. 153a) which indicates that, even during the "peak" period, some gas would be available for air pollution control.

ated by X–20 gas any better than by CD–3 gas supply. Of the 50,000 Mcf of X–20 service planned for the first year, only 25,000 Mcf would be used at the Waterside plant for Boilers 71 and 72 on a year-round basis. The other 25,000 Mcf would be used only on an interruptible basis; during the peak period of "95 to 100 days a year," the 60-day gas (and presumably some CD–3 gas) would be used in the Con Edison gas distribution system, rather than under boilers to alleviate air pollution (R. 98a). If Con Edison finally were to obtain 120,000 Mcf per day of the X–20 service, it would still use only 25,000 Mcf at Waterside for Boilers 71 and 72 on a year-round basis; it would use the other 95,000 Mcf on an interruptible basis. During the peak period, the plan calls for the substitution of oil for gas, Con Edison indicating plans for "spending $7,250,000 for alternate oil burning equipment at East River" (R. 7a). Con Edison did not indicate, however, how it intends to eliminate the fumes of high sulphur dioxide content from the burning of the oil, which would merely substitute one form of air pollution for another during the winter peak period.

In light of all the alternative methods of alleviating the air pollution problem at Waterside, which the record contains, it can hardly be considered arbitrary for the Commission to have weighed these factors in the balance with the other factors involved and to have denied the certificate. Moreover, in light of what is now actually being done at Waterside, the

lack of arbitrariness in the Commission's action appears *a fortiori*.

CONCLUSION

For the foregoing reasons, and for the reasons discussed in our main brief, it is respectfully submitted that the judgment of the court of appeals should be reversed and the order of the Commission should be affirmed.

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